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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,412	04/06/2007	Shuhei Okude	4252-0120PUS1	9068

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EXAMINER
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ROBINSON, ELIZABETH A

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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02/11/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,412	<b>Applicant(s)</b> OKUDE ET AL.	
	<b>Examiner</b> Elizabeth Robinson	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6-26-2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This claim contains the limitation that the microparticles are conductive. However, the type of conductivity (thermal, electrical, etc.) is not specified.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoshi et al. (US 2003/0104188).

Regarding claims 1-3, Shoshi (Paragraphs 8-9) teaches a film for optical applications comprising a substrate (base) film and a low refractivity (low refractive index) layer. The film exhibits excellent scratch resistance (Paragraph 8) and thus, is a protective film. While the film is not explicitly stated as protecting a polarizing plate, this is an intended use of the protective film. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the

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prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

The low refractive index layer has a refractive index in the range of 1.30 to 1.45 (Paragraph 47). This range overlaps the range of the instant claims. The low refractive index layer comprises porous silica and a polysiloxane based polymer (Paragraph 50). The size of the porous silica particles is preferably 30 to 80nm. Thus, the particles are microparticles. The polysiloxane based polymer can be the same as the material for the hardcoat layer of the film (Paragraph 50). The polysiloxane based polymer is taught in Paragraphs 25-31 and can have any of the forms specified in the instant claims with M as Si.

Regarding claim 4, Shoshi (Paragraph 11) teaches that the film comprises a hard coat layer between the base film and the low refractive index layer.

Regarding claim 5, Shoshi (Paragraph 23) teaches that the hard coat layer is cured by heat or ionizing radiation.

Regarding claim 6, Shoshi (Paragraph 45) teaches that the refractive index of the hard coat layer is 1.50 to 1.75 and preferably 1.60 to 1.70. These ranges overlap or are fully encompassed by the range of the instant claim.

Regarding claim 7, Shoshi (Paragraphs 21) teaches that the hard coat layer can comprise fine particles of tin oxide doped with antimony or zinc antimonite with an average particle diameter of 1 to 60 nm. These materials are conductive microparticles.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shoshi et al., in view of Murakami et al. (US 5,681,900). As stated above, Shoshi teaches a film which meets the limitations of claim 1. Shoshi (Paragraph 18) further teaches that the substrate film can be any film conventionally used for substrates for optical applications. For a protective film for a liquid crystal display, the film should be transparent and colorless (Paragraph 19). Shoshi does not explicitly state that the substrate is an alicyclic structure-containing polymer resin. Murakami (Column 9, lines 7-28) teaches that for uses such as liquid crystal device substrates and polarizing films, a norbornene resin composition has excellent heat resistance and transparency, low hygroscopicity and is mechanically tough. It would be obvious to one of ordinary skill in the art to use the norbornene resin composition of Murakami, to form the substrate of Shoshi, in order to provide a transparent substrate that is tough, does not absorb water and has high heat resistance.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoshi et al., in view of Nakamura et al. (US 2001/0035929). As stated above, Shoshi teaches a film which meets the limitations of claim 1. Shoshi (Paragraph 8) further

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teaches that the film can be used as an antireflection film on the surface of a liquid crystal display (LCD). Shoshi does not explicitly teach that the film is on the observation side of a polarizing plate. Nakamura (Paragraph 137) teaches that when an antireflection film is attached to an LCD, it is preferable to use it as one of two protective films for a polarizer plate, which is then adhered to the screen. It would be obvious to one of ordinary skill in the art to use the antireflection film of Shoshi in a conventional manner as taught by Nakamura.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 6 and 8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5-8 of U.S. Patent No.

7,285,323. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both optical films comprising inorganic microparticles and a siloxane binder as the low refractive index layer, a hardcoat layer and an alicyclic polymer substrate layer.

Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 6 of copending Application No. 11/628,844. Although the conflicting claims are not identical, they are not patentably distinct from each other because, using the specification as the definition of an aerogel, they are both optical films comprising inorganic microparticles and a siloxane binder as the low refractive index layer on a substrate layer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4, 6 and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-13 of copending Application No. 11/793,762. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both optical films comprising inorganic microparticles and a siloxane binder as the low refractive index layer, a hardcoat layer and an alicyclic polymer substrate layer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is 571-272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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*EAL*

  
**CAROL CHANEY**  
**SUPERVISORY PATENT EXAMINER**